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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,529

03/15/2004

Matthew David Bomhoff

TUC920030179US1

1316

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7590

10/10/2008

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EXAMINER

MATTIS, JASON E

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

10/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/800,529	BOMHOFF ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	JASON E. MATTIS	2416	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. This Office Action is in response to the Request for Continued Examination filed 7/23/08. Claim 20 has been cancelled. Claims 1-19 and 21-31 are currently pending in the application.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 5, 7-9, 12, 14-19, 22, 23, 25-28, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson et al. (U.S. Pat. 5084870) in view of Eldridge et al. (U.S. Publication US 2004/0223460 A1).

**With respect to claims 1, 19, 30, and 31**, Hutchinson et al. discloses an apparatus operating a method using computer code stored on a computer readable medium for identifying network mis-cabling (**See the abstract, column 10 lines 38-58, and Figure 7 of Hutchinson et al. for reference to an apparatus and method for detecting invalid network topology connections**). Hutchinson et al. also discloses a detection module detecting a new connection facilitated by a first physical termination of

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a network cable at a network switch forming part of a data network (**See column 13 lines 17-40 and Figure 8 of Hutchinson et al. for reference to detecting a new physical connection at a switching device when a request is received in step 304**). Hutchinson et al. further discloses a comparison module comparing the new connection to a switch connection rule if the new connection is a switch connection, else comparing the new connection to a non-switch connection rule (**See column 13 lines 41-59, column 16 lines 21-40 and Figures 11-16 of Hutchinson et al. for reference to determining if a new connection is a connection of type A, B, or M corresponding to a connection to a dual attachment station, which is a switch, and if so comparing the connection to a type A, B, or M, switch connection rule, else determining if the new connection is a connection of type of type S corresponding to a connection to a single attachment station, which is not a switch**). Hutchinson et al. also discloses each connection rule defining a cabling connection and a network topology (**See column 13 lines 41-59 and Figure 8 of Hutchinson et al. for reference to comparing the new connection from the request to rules defining valid connection types that form a valid network topology in a connection matrix in step 328**). Hutchinson et al. also discloses a cabling connection module to control authorization of a network communication over the new connection in accordance with the connection rule (**See column 13 line 60 to column 14 line 6 and Figure 8 of Hutchinson et al. for reference to either permitting data transfer over the new connection or not in accordance with the connection matrix comparison**

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**result**). Hutchinson et al. does not specifically disclose a connection rule depending on a type of cabling.

**With respect to claim 14**, Hutchinson et al. discloses a system for identifying network mis-cabling comprising a first network device and a second network device with an external cable making a new connection between the first and second devices **(See the abstract, column 5 lines 23-38, and Figure 5 of Hutchinson et al. for reference to a system including an apparatus for detecting invalid network topology connections and for reference to multiple network devices with external cabling making new connections between the devices, as shown in Figure 5)**. Hutchinson et al. also discloses comparing the new connection to a switch connection rule if the new connection is a switch connection, else comparing the new connection to a non-switch connection rule **(See column 13 lines 41-59, column 16 lines 21-40 and Figures 11-16 of Hutchinson et al. for reference to determining if a new connection is a connection of type A, B, or M corresponding to a connection to a dual attachment station, which is a switch, and if so comparing the connection to a type A, B, or M, switch connection rule, else determining if the new connection is a connection of type of type S corresponding to a connection to a single attachment station, which is not a switch)**. Hutchinson et al. further discloses a cabling connection module configured to refuse network service via the new connection prior to a determination that the new connection is a legal connection according to a connection rule defining a cabling connection and a network topology **(See column 10 lines 38-58, column 13 line 17 to column 14 line 6, and Figures 7 and 8 of**

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**Hutchinson et al. for reference to a module not permitting data to be sent over a new connection until it is determined that the connection is valid, as shown by the method in Figure 8, and for reference to comparing a connection to rules defining valid connection types that form a valid cabling connection and network topology in a connection matrix in step 328).** Hutchinson et al. does not specifically disclose a connection rule defining a type of cabling.

**With respect to claim 15,** Hutchinson et al. discloses a system for identifying network mis-cabling **(See the abstract of Hutchinson et al. for reference to a system for detecting invalid network topology connections).** Hutchinson et al. also discloses a host server having a host bus adapter **(See column 10 lines 25-58 and Figure 7 of Hutchinson et al. for reference to a station 250 that acts as a host server including MAC modules, which are bus adapters).** Hutchinson et al. also discloses a network switch having a network adaptor **(See column 5 lines 23-38 and Figure 5 of Hutchinson et al. for reference to the system including multiple network switches with adapters for cabling connections).** Hutchinson et al. further discloses an external cable connecting the host bus adapter to the network adapter **(See column 5 lines 23-38, column 10 lines 25-58, and Figures 5 and 7 of Hutchinson et al. for reference to connecting the switch 250 to other switches using external cabling).** Hutchinson et al. also discloses a cabling connection apparatus detecting and reporting the first new connection **(See column 13 lines 17-40 and Figure 8 of Hutchinson et al. for reference to detecting a new physical connection at a switching device and for reference to reporting the new**

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**connection using a request that is received in step 304).** Hutchinson et al. also discloses a comparison module comparing the new connection to a switch connection rule if the new connection is a switch connection, else comparing the new connection to a non-switch connection rule **(See column 13 lines 41-59, column 16 lines 21-40 and Figures 11-16 of Hutchinson et al. for reference to determining if a new connection is a connection of type A, B, or M corresponding to a connection to a dual attachment station, which is a switch, and if so comparing the connection to a type A, B, or M, switch connection rule, else determining if the new connection is a connection of type of type S corresponding to a connection to a single attachment station, which is not a switch).** Hutchinson et al. further discloses a comparison module determining if the first new connection is a legal cabling connection, with each connection rule defining a cabling connection and a network topology **(See column 13 lines 41-59 and Figure 8 of Hutchinson et al. for reference to comparing the new connection to rules defining valid cabling connection types that form a valid network topology in a connection matrix in step 328).** Hutchinson et al. does not specifically disclose a connection rule depending on a type of cabling.

**With respect to claims 1, 14, 15, 19, 30, and 31,** Eldridge et al., in the field of communications, discloses using a connection rule depending on a type of cabling **(See the abstract, pages 2-3 paragraphs 25-28, and claim 8 of Eldridge et al. for reference to automatically detecting a problem with a router cable connection by detecting an incorrect type of cable being used).** Using a connection rule depending on a type of cabling has the advantage of allowing unskilled users to save time when

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installing and troubleshooting router connections by informing the user when an incorrect type of cabling has been used **(See the abstract of Eldridge et al. for reference to this advantage).**

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Eldridge et al., to combine using a connection rule depending on a type of cabling, as suggested by Eldridge et al., with the system and method of Hutchinson et al., with the motivation being to allow unskilled users to save time when installing and troubleshooting router connections.

**With respect to claim 2**, Hutchinson et al. discloses determining if the new connection is a switch connection **(See column 5 line 51 to column 6 line 33, column 13 lines 41-59, and Figure 8 of Hutchinson et al. for reference to determining the type of connection including determining if the connection is a switch connection, i.e. a connection from a concentrator, or a non-switch connection, i.e. a connection from an end station).**

**With respect to claims 4, 16, and 22**, Hutchinson et al. discloses an isolation module isolating the connection in response to determining that the new connection is not legal **(See column 14 lines 17-43 of Hutchinson et al. for reference to rejection a connection as not valid and isolating the invalid connection).**

**With respect to claims 5 and 23**, Hutchinson et al. discloses an insertion module inserting the new connection in response to determining that the new connection is legal **(See column 13 line 60 to column 14 line 6 and Figure 8 of**



**Hutchinson et al. for reference to permitting data transfer over connection determined to be valid).**

**With respect to claims 7 and 25**, Hutchinson et al. discloses a verification module determining if the new connection conflicts with an existing connection **(See column 13 line 17 to column 14 line 6 and Figure 8 of Hutchinson et al. for reference to determining if a new connection conflicts with other existing connections according to the connection matrix rules).**

**With respect to claims 8, 17, and 26**, Hutchinson et al. discloses establishing a connection request record identifying the corresponding new connections at the network switch and a second network device **(See column 13 lines 17-59 and Figure 8 of Hutchinson et al. for reference to using singling to establish a connection request identifying both ends of a new physical connection).**

**With respect to claims 9 and 27**, Hutchinson et al. discloses obtaining a second network device identifier descriptive of the second connection **(See column 13 lines 17-59 and Figure 8 of Hutchinson et al. for reference to devices on both sides of the new connection exchanging station connection identification information).**

**With respect to claims 12 and 28**, Hutchinson et al. discloses the request record identifying a device type **(See column 13 lines 29-40 and Figure 8 of Hutchinson et al. for reference to the request identifying a connection device type).**

**With respect to claim 18**, Hutchinson et al. discloses transmitting the connection request to the comparison module **(See column 13 lines 17-40 and Figure**

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**8 of Hutchinson et al. for reference to transmitting a new connection request to a module for comparison with the connection matrix).**

4. Claims 3, 6, 13, 21, 24, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson et al. in view of Eldridge et al., and in further view of Dolbec et al. (U.S. Publication US 2006/0153562 A1).

**With respect to claims 3, 13, 21, and 29**, the combination of Hutchinson et al. and Eldridge et al. does not disclose notifying a host of the new connection and storing a connection record in a database.

**With respect to claims 3, 13, 21, and 29**, Dolbec et al., in the field of communications, discloses notifying a host of a new connection and storing a connection record in a database **(See the abstract and page 3 paragraphs 51-53 of Dolbec et al. for reference to automatically displaying new connections on a host GUI and for reference to storing connection information)**. Notifying a host of a new connection and storing a connection record in a database has the advantage of allowing a user to be aware of all new and existing network connections that are being automatically processed.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Dolbec et al., to combine notifying a host of a new connection and storing a connection record in a database, as suggested by Dolbec et al., with the system and method of Hutchinson et al. and Eldridge et al., with the motivation being to allow a user to be aware of all new and existing network connections that are being automatically processed.

**With respect to claims 6 and 24**, the combination of Hutchinson et al. and Eldridge et al. does not disclose altering an existing connection on the data network.

**With respect to claims 6 and 24**, Dolbec et al. discloses altering an existing connection on a network (**See page 3 paragraph 65 of Dolbec et al. for reference to altering existing connections in response to detecting an invalid connection**).

Altering an existing connection on a network has the advantage of allowing an illegal connection to become a legal connection by changing other network connections.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Dolbec et al., to combine altering an existing connection on a network, as suggested by Dolbec et al., with the system and method of Hutchinson et al. and Eldridge et al., with the motivation being to allow an illegal connection to become a legal connection by changing other network connections.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson et al. in view of Eldridge et al., and in further view of Bartfai et al. (U.S. Pat. 6381643 B1).

**With respect to claims 10 and 11**, the combination of Hutchinson et al. and Eldridge et al. does not disclose a request record comprising a first and second device identifier and a first and second port identifier.

**With respect to claims 10 and 11**, Bartfai et al., in the field of communications, discloses a request record comprising a first and second device identifier and a first and second port identifier (**See column 5 line 39 to column 6 line 3 and Figure 3 of**

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**Bartfai et al. for reference to a transmission stream, which is a request record, including multiple device and port identifiers).** Using a request record comprising a first and second device identifier and a first and second port identifier has the advantage of allowing information about both sides of a new connection to be used in determining if the connection is valid.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Bartfai et al., to combine using a request record comprising a first and second device identifier and a first and second port identifier, as suggested by Bartfai et al., with the system and method of Hutchinson et al. and Eldridge et al., with the motivation being to allow information about both sides of a new connection to be used in determining if the connection is valid.

### ***Response to Arguments***

6. Applicant's arguments filed 7/23/08 have been fully considered but they are not persuasive.

Regarding Applicant's argument that Hutchinson et al. does not disclose comparing the new connection to a switch connection rule if the new connection is a switch connection, else comparing the new connection to a non-switch connection rule, the Examiner respectfully disagrees. Hutchinson et al. discloses two different network element types having connections; single attachment stations and dual attachment stations (See the abstract of Hutchinson et al. for reference to single attachment

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stations and dual attachment stations). The dual attachment stations are switching devices while the single attachment stations are non-switching devices, thus the connections from dual attachment devices are switch connection and the connections from single attachment devices are non-switch connection (See column 16 lines 21-40 and Figures 14-15 of Hutchinson et al. for reference to determining a dual attachment station, which is a switch having switching components, and a single attachment station, which is not a switch not having switching components). Hutchinson et al. also discloses comparing switch connection rules if a connection is a switch connection and comparing non-switch connection rules if a connection is not a switch connection (See column 13 lines 41-59 and Figures 11-13 and 16 of Hutchinson et al. for reference to determining if a new connection is a connection of type A, B, or M corresponding to a connection to a dual attachment station, which is a switch, and if so comparing the connection to a type A, B, or M, switch connection rule, else determining if the new connection is a connection of type of type S corresponding to a connection to a single attachment station, which is not a switch). Thus Hutchinson et al. does disclose comparing the new connection to a switch connection rule if the new connection is a switch connection, else comparing the new connection to a non-switch connection rule, as claimed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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